

## ABSTRACT

A microfluidic device including a microfluidic chip assembled to an electrospray structure. The microfluidic chip includes at least one microfluidic channel leading through an outlet aperture to a surface area of the microfluidic chip. The electrospray structure includes at least one thin, planar point provided with a capillary slot that terminates at the end of the point so as to form an aperture for ejection of a liquid to be sprayed. The electrospray structure is arranged on the surface area of the microfluidic chip so that the point is cantilevered with respect to the microfluidic chip and so that the outlet aperture of the microfluidic device leads to the capillary slot of the point, which microfluidic device also has a mechanism to apply an electrospray voltage to the liquid to be sprayed.